Hunt for high-energy photons takes place from a mountaintop in Mexico

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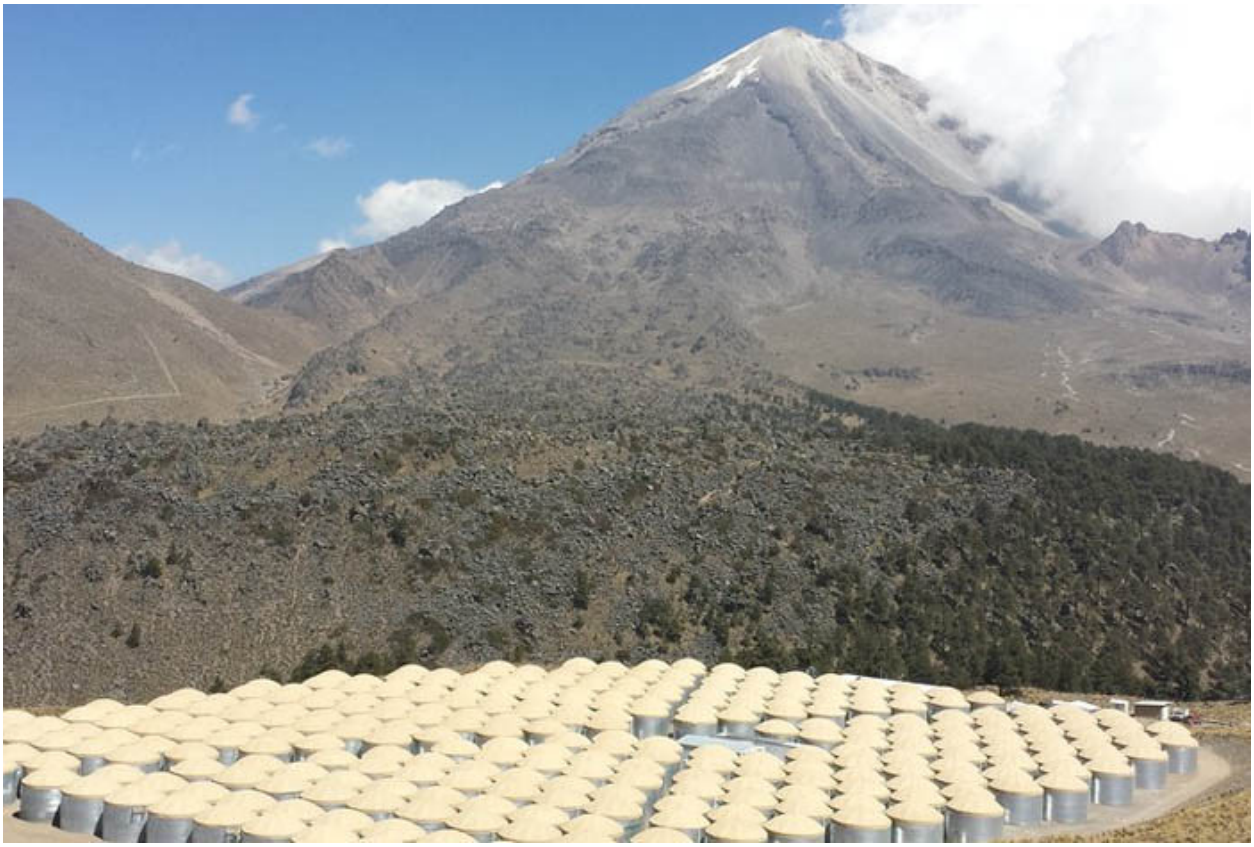

Hunt for high-energy photons takes place from a mountaintop in Mexico

The air over your head is alive with invisible showers. Powerful particles from space are constantly hitting the atmosphere above you, generating a subatomic cascade that shoots downward at near light speed. Figuring out where these downpours originate and what they tell us about the universe is the job of the High-Altitude Water Cherenkov (HAWC) observatory a telescope consisting of 300 giant tanks of purified water placed near the summit of the Sierra Negra volcano in Mexico.

HAWC's goal is to find the highest-energy phenomena in the cosmos; including exotic stars, supermassive black holes, and annihilating dark matter. Phenomena such as these produce gamma rays, photons with more than a trillion times the energy of the optical light we see with, and cosmic rays, charged atomic nuclei with energies up to

seven times that of the protons smashed together at the Large Hadron Collider. The origins of both remain shrouded in many mysteries, which is why HAWC constantly monitors a large part of the sky in the hope of unraveling a few.

Read more.

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